

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims

1. (Currently Amended) A method, comprising:

signaling, as part of a diagnostic operation with respect to an Input/Output (I/O) controller, a reconnection inhibitor over a bus to cause the reconnection inhibitor to perform an operation to access the bus to inhibit the I/O controller from accessing the bus;

transmitting, as part of the diagnostic operation, by an initiator, I/O requests on the bus to the I/O controller, wherein the I/O requests are queued in an I/O queue, wherein the I/O controller is inhibited by the reconnection inhibitor from draining the queue while the initiator transmits requests to the I/O controller;

signaling the reconnection inhibitor to perform an operation to cease accessing the bus, wherein the I/O controller accesses the bus to complete processing of an I/O request and process further I/O requests in the I/O queue in response to the reconnection inhibitor ceasing to issue requests on the bus; and

performing diagnostic testing of the I/O controller when the I/O queue is at different levels, wherein the level of I/O requests pending in the I/O queue is controlled by the signaling of the reconnection inhibitor, wherein the I/O queue is increased by signaling the reconnection inhibitor to access the bus to inhibit the I/O controller from accessing the bus and depleting the I/O queue, and wherein the I/O queue is decreased by signaling the reconnection inhibitor to cease accessing the bus to inhibit the I/O controller.

2. (Original) The method of claim 1, wherein the initiator accesses the bus at a higher priority than the reconnection inhibitor, and wherein the reconnection inhibitor accesses the bus at a higher priority than the I/O controller.

3. (Original) The method of claim 2, wherein the initiator uses a first device identifier to communicate with the bus, the reconnection inhibitor uses a second device identifier to communicate with the bus, and the I/O controller uses a third device identifier to communicate

with the bus, wherein the first device identifier has priority over the second device identifier, and wherein the second device identifier has priority over the third device identifier.

4. (Original) The method of claim 1, wherein the initiator signals the reconnection inhibitor to arbitrate on the bus when a device other than the initiator is arbitrating on the bus.

5. (Canceled)

6. (Canceled)

7. (Canceled)

8. (Original) The method of claim 1, wherein the reconnection inhibitor accesses the bus to inhibit the I/O controller when the I/O controller attempts to arbitrate on the bus.

9. (Original) The method of claim 1, wherein the reconnection inhibitor inhibits the I/O controller from processing further I/O requests in the I/O queue by preventing the I/O controller from communicating with the initiator over the bus to complete I/O requests.

10. (Original) The method of claim 1, wherein the I/O controller comprises a storage controller, and wherein the I/O requests comprise read and write requests directed to a storage system managed by the I/O controller.

11. (Original) The method of claim 1, wherein the bus comprises a SCSI parallel bus.

12. (Currently Amended) A system, comprising:

a reconnection inhibitor;

an initiator;

an Input/Output (I/O) controller;

a bus, wherein the reconnection inhibitor, initiator, and the I/O controller communicate over the bus;

circuitry in the initiator capable of causing operations comprising:

[[(i)]] signaling, as part of a diagnostic operation with respect to the I/O controller, the reconnection inhibitor over the bus; and

[[(ii)]] transmitting, as part of the diagnostic operation, I/O requests on the bus to the I/O controller after signaling the reconnection inhibitor;

signaling the reconnection inhibitor to perform an operation to cease accessing the bus, wherein the I/O controller accesses the bus to complete processing of an I/O request and process further I/O requests in the I/O queue in response to the reconnection inhibitor ceasing to issue requests on the bus; and

[[(iii)]] performing diagnostic testing of the I/O controller when the I/O queue is at different levels, wherein the level of I/O requests pending in the I/O queue is controlled by the signaling of the reconnection inhibitor, wherein the I/O queue is increased by signaling the reconnection inhibitor to access the bus to inhibit the I/O controller from accessing the bus and depleting the I/O queue, and wherein the I/O queue is decreased by signaling the reconnection inhibitor to cease accessing the bus to inhibit the I/O controller; and

circuitry in the reconnection inhibitor capable of accessing the bus to inhibit the Input/Output (I/O) controller from accessing the bus in response to receiving the signal from the initiator, wherein the I/O requests transmitted by the initiator are queued in an I/O queue, wherein the I/O controller is inhibited by the reconnection inhibitor from draining the queue while the initiator transmits requests to the I/O controller.

13. (Original) The system of claim 12, wherein the initiator accesses the bus at a higher priority than the reconnection inhibitor, and wherein the reconnection inhibitor accesses the bus at a higher priority than the I/O controller.

14. (Original) The system of claim 13, wherein the initiator uses a first device identifier to communicate with the bus, the reconnection inhibitor uses a second device identifier to communicate with the bus, and the I/O controller uses a third device identifier to communicate with the bus, wherein the first device identifier has priority over the second device identifier, and wherein the second device identifier has priority over the third device identifier.

15. (Original) The system of claim 12, wherein the initiator signals the reconnection inhibitor to arbitrate on the bus when a device other than the initiator is arbitrating on the bus.

16. (Canceled)

17. (Canceled)

18. (Canceled)

19. (Original) The system of claim 12, wherein the reconnection inhibitor accesses the bus to inhibit the I/O controller when the I/O controller attempts to arbitrate on the bus.

20. (Original) The system of claim 12, wherein the reconnection inhibitor inhibits the I/O controller from processing further I/O requests in the I/O queue by preventing the I/O controller from communicating with the initiator over the bus to complete I/O requests.

21. (Previously Presented) The system of claim 12, wherein the I/O controller comprises a storage controller, and wherein the I/O requests comprise read and write requests directed to a storage system managed by the I/O controller.

22. (Previously Presented) The system of claim 12, wherein the bus comprises a SCSI parallel bus.

23. (Currently Amended) A device in communication with an initiator and an Input/Output (I/O) controller over a bus, wherein the device includes circuitry capable of causing operations comprising:

receiving, as part of a diagnostic operation with respect to the I/O controller, a signal from the initiator; and

accessing the bus to inhibit the Input/Output (I/O) controller from accessing the bus in response to the signal, wherein the initiator transmits, as part of the diagnostic operation, I/O requests on the bus to the I/O controller, wherein the I/O requests are queued in an I/O queue, wherein the I/O controller is inhibited by the device from draining the queue while the initiator transmits requests to the I/O controller, wherein the initiator performs diagnostic testing of the

I/O controller when the I/O queue is at different levels, and wherein the level of I/O requests pending in the I/O queue is controlled by the device inhibiting the I/O controller from accessing the bus;

receiving a second signal from the initiator to cease accessing the bus, wherein the I/O controller accesses the bus to complete processing of an I/O request and process further I/O requests in the I/O queue in response to the device ceasing to access the bus, wherein the level of I/O requests pending in the I/O queue is controlled by the device accessing the bus, wherein the I/O queue is increased by the device accessing the bus to inhibit the I/O controller from accessing the bus and depleting the I/O queue, and wherein the I/O queue is decreased by the device ceasing to access the bus to inhibit the I/O controller.

24. (Original) The device of claim 23, wherein the initiator accesses the bus at a higher priority than the device, and wherein the device accesses the bus at a higher priority than the I/O controller.

25. (Original) The device of claim 24, wherein the initiator uses a first device identifier to communicate with the bus, the device uses a second device identifier to communicate with the bus, and the I/O controller uses a third device identifier to communicate with the bus, wherein the first device identifier has priority over the second device identifier, and wherein the second device identifier has priority over the third device identifier.

26. (Original) The device of claim 23, wherein the device accesses the bus by arbitrating on the bus when a device other than the initiator is arbitrating on the bus.

27. (Canceled)

28. (Canceled)

29. (Original) The device of claim 23, wherein the device accesses the bus to inhibit the I/O controller when the I/O controller attempts to arbitrate on the bus.

30. (Original) The device of claim 23, wherein the device inhibits the I/O controller from processing further I/O requests in the I/O queue by preventing the I/O controller from communicating with the initiator over the bus to complete I/O requests.

31. (Original) The device of claim 23, wherein the I/O controller comprises a storage controller, and wherein the I/O requests comprise read and write requests directed to a storage system managed by the I/O controller.